



Activity 1- The nature of genes and chromosomes

Write the key biology term into the correct box

1. The difference between alleles
2. one chromosome consisting of a circular DNA molecule.
3. nuclei with one chromosome of each pair.
4. a characteristic feature of members of a species
5. the whole of the genetic information of an organism.

Matching the following five terms with their definitions

1. ☐ The Human Genome Project.
2. ☐ Eukaryote chromosomes
3. ☐ A karyogram
4. ☐ Diploid nuclei
5. ☐ Plasmids

a nuclei with one homologous pair of each chromosome.

b An image which shows the chromosomes of an organism in homologous pairs of decreasing length.

c linear DNA molecules associated with histone proteins.

d Project that sequenced the entire base sequence of human genes.

e extra rings of DNA which some prokaryotes have but eukaryotes do not.



Multiple choice questions

1. The process new alleles are formed by
 - A. Alleles.
 - B. A gene
 - C. Plasmids
 - D. Mutation

2. The various specific forms of a gene
 - A. Plasmids
 - B. Gene locus
 - C. Alleles.
 - D. A gene

3. a heritable factor that consists of a length of DNA and influences a specific characteristic.
 - A. Plasmids
 - B. The genome
 - C. A gene
 - D. Alleles.

4. chromosomes which carry the same sequence of genes but not necessarily the same alleles of those genes.
 - A. Homologous chromosomes
 - B. Prokaryotes chromosome
 - C. The number of chromosomes
 - D. Eukaryote chromosomes

5. specific position on a chromosome occupied by a gene.
 - A. Mutation
 - B. Alleles.
 - C. Gene locus
 - D. A gene